2: Jochelson E-5 (1884-1902) 1933 Yakut

and shut out mosquitoes. We may assume that this kind of dwelling was invented by the Yakut after their arrival in their present territory from a more southerly habitat. Indeed, the present Yakut dwelling is far more fitted to the harsh sub-polar or polar climate than any type of tent.

When living near cities or Russian settlements, the Yakut abandon their earth huts and live in log houses of the Russian type. Fig. 23 illustrates a log house of a rich Yakut elder on the Lena River not far from the City of Yakutsk.

As a summer dwelling, the ancient Yakut used a conical tent covered with birchbark (Fig. 24). It differs from other types of birchbark tents in size and in the heavy and solid construction of the wooden frame, so that it cannot be easily transported. These large tent-like dwellings

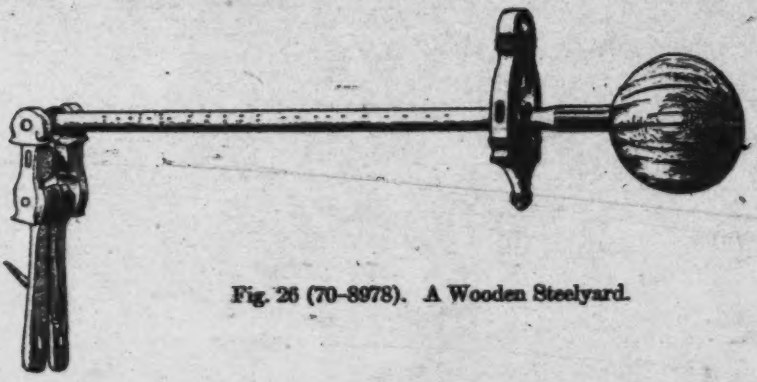

Fig. 26 (70-8978). A Wooden Steelyard.

were located far from the winter earth huts of the Yakut and were occupied during the summer so that the horses and cattle might not injure the meadows on which hay is grown for the winter and near which the winter dwellings are situated.

The fireplace of the birchbark tent is constructed like the hearth of the earth hut, i.e., it is a large wooden bottomless box filled with beaten clay. The only difference is that in the tent the fireplace is situated in the center under the opening in the top and has no chimney. This type of dwelling is no longer used, though twenty-five years ago it was occasionally observed. The tent was ornamented with engravings, wood, and birchbark carvings, sinew and horsehair embroidery, and with slivers of colored mica and pieces of bright cloth.

In some districts a polygonal sloping-roofed blockhouse (Fig. 25) was used instead of the conical tent. The author saw such blockhouses

2: Jochelson E-5 (1884-1902) 1933 Yakut

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The methods pursued by the Yakut[1] are fairly simple (Fig. 47*a–g*). The clay, *tuoi*, is crushed on a flat stone with a wooden mallet called *ötüyä* (Fig. 47). Then the powdered clay is placed in a wooden trough where it is mixed with warm water, milk or *sorat*, a kind of sour milk. Often a powder made of fragments of old pottery is added to the mixture. The paste is beaten with the wooden mallet until it becomes soft and plastic. Then a clay disc is moulded and placed on a flat board; the walls of the vessel are built up by adding strips of clay until the desired size is attained. To give the pot a regular rounded form, willow rings,

Fig. 47 *a–g* (70-8589, 9242, 8592*b*, 8592, 9245, 8591, 9243, 9244, 8775). Pottery Making Implements. *a*, Wooden mallet; *b*, Willow rings; *c*, Two wooden balls; *d*, Wooden paddle; *e*, A wooden knife for cutting clay; *f*, Two wooden stamps for ornamentation; *g*, An iron cleaner for cooking pottery (See Fig. 48).

called *küös-ilä* (Fig. 47*b*) are placed around the bottom and the upper rim while the walls are being built up. They are smoothed and made of uniform thickness with a wooden ball (*küös oxsor mäs*) (Fig. 47*c*) held inside the pot in the left hand while a wooden paddle (*küös oxsor lop-paky*) is applied on the outside (Fig. 47*d*). Fig. 47*e* shows a wooden knife for cutting clay; Fig. 47*f*, two wooden stamps for ornamentation; Fig. 47*g* an iron cook pot cleaner (see also Fig. 48).

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The method of firing is quite primitive. The vessel is placed on charcoal from the hearth and when red hot, cold water, sometimes mixed with milk or sour milk, is poured over it; then it is heated a second

[1] [ie. for making pottery -- ANALYST]

2: Jochelson E-5 (1884-1902) 1933 Yakut

The Yakut prefer it[1] to the imported
Russian iron and call it *sakha-timir* (Yakut iron) as opposed to *nucha timir* (Russian iron). The Yakut iron ore yields 10 per cent iron, the Yakut are unable to handle the process in order to obtain a desirable sort of iron or to make steel. The imported steel, however, is too expensive for the Yakut. It is very easy to distinguish between the flexible Yakut knives and the hard Russian iron ware.

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The Yakut Blacksmith. The double bellows (*küörť*) of the majority of East Siberian tribes is used by the Yakut blacksmiths. This type of bellows was found not only among the Turkic-Mongol tribes of central and western Asia, but also in Eastern Africa. The Yakut double bellows belongs to the type called *Schläuchblasebälge* (leather-bag-bellows) by German ethnologists. These leather-bag-bellows, in their turn, are known in two forms, one of which is represented by the Yakut double bellows which are distinguished by openings in the form of short slits in the tops of the leather bags. The tubes from the bags run to the furnace where they are united and have a single outlet. Pairs of small sticks are sewed along the edges of the slits. When these sticks are brought together with the hand the bag is hermetically sealed. The blacksmith's assistant, sitting on the floor between the leather bags, alternately raises and opens one of the bags with his fingers, simultaneously closing and lowering the other bag. In this way a continuous draft is maintained.[1] The Yakut blacksmith sits on a low seat at the furnace, his anvil (*kystyk*), tongs (*kytahas*), hammer (*ötuye*), and a file (*igi*), on the ground beside him. All these objects resemble the paraphernalia of the eighteenth century Mongolian smithy illustrated in Pallas' work.[2] The Yakut, like the Gypsy smith, has remained to a considerable degree an itinerant artisan. Usually he carries his tools and bellows to the place where the work is to be done. In Fig. 54 is illustrated a Yakut blacksmith who has established himself under the roof of a sledge shed belonging to a rich Yakut patron.

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In many respects the technique of the smith has remained primitive. One of the disadvantages of the trade is the necessity of having an assistant for the bellows. The draft of the bellows is usually too strong for small objects which burn and too weak for large objects. Sometimes two

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[1] For a discussion and detailed description of different types of bellows see the following: Andrée, R., *Die Metalle bei den Naturvölkern mit Berücksichtigung Prähistorischer Verhältnisse.* Leipzig, 1884; Beck, L., *Die Geschichte des Eisens.* Berlin, 1870–1871; Foy, W., Zur Geschichte der Eisentechnik und besonders des Gebläses (*Ethnologica, Im Auftrage des Vereins zur Förderung des städtischen Rautenstrauch-Joest Museum für Völkerkunde in Köln*, vol. 1, pp. 185–222, Leipzig, 1900); von Luschan, Felix, Eisentechnik in Afrika (*Zeitschrift für Ethnologie*, vol. 41, pp. 22–59, Berlin, 1909). Doctor Foy combats the contention of Professor Von Luschan that Africa is the place of origin of iron smelting and the blacksmith's art.

[2] Pallas, P. S., *Sammlungen der historischen Nachrichten über die Mongolischen Völkerschaften.* 1787. Part 1, Pl. 5.

1 [i.e., pig iron mined in YAKUTSK --ANALYST]

2: Jochelson E-5 (1884-1902) 1933 Yakut

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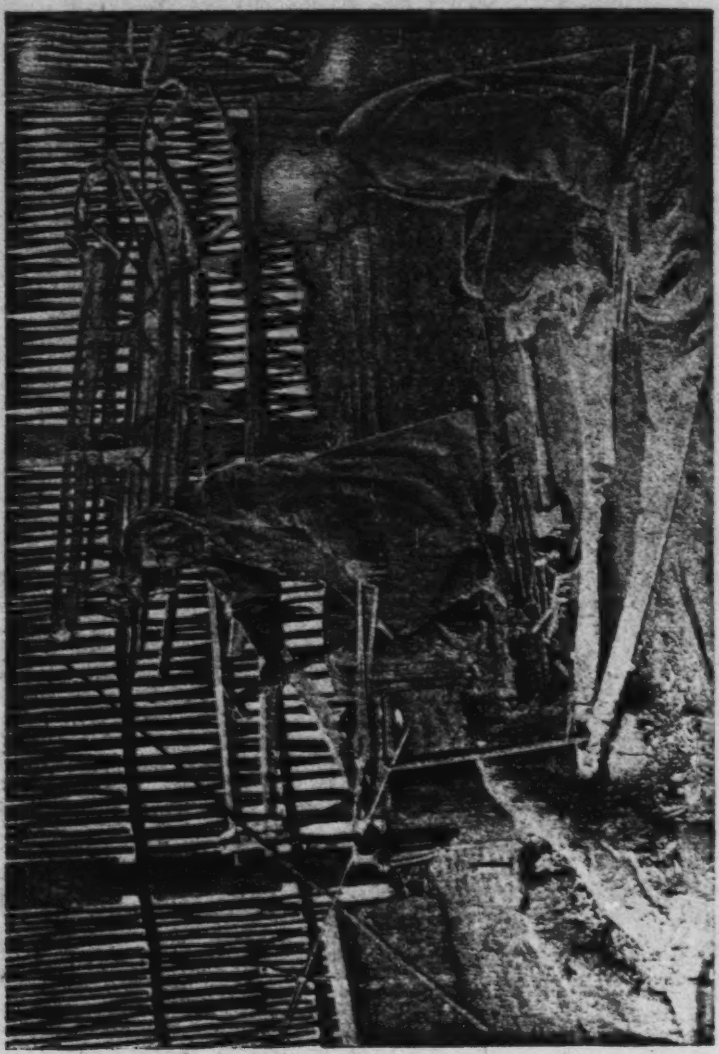

Fig. 54. A Blacksmith at Work. The itinerant Yakut blacksmith usually established himself under the roof of the sledge shed of a rich patron.

2: Jochelson E-5 (1884-1902) 1933 Yakut

pairs of bellows are employed. Welding is not perfectly accomplished and traces of the process are visible. Nevertheless some native blacksmiths near Yakutsk have learned from Russian artisans the art of fluxing and tempering iron. From their own steel, they make files, axes, knives, spears, and other implements sufficiently hard, but they do not know how to forge springs. Until recently they did not know how to cut screws and to drill iron. Now they use Russian screw plates and the screw is called by the Russian name *bint* (in Russian *vint*) or *nuchasuola*, Russian path. Holes are pierced instead of being drilled. They do not know how to cast iron and call it by the Russian name, *djugun* (Russian, *chugun*). Knives made of native iron may be easily distinguished by their softness and flexibility from the hard knives of Russian manufacture.

It is of interest to note that the Tungus as well as the Yukaghir blacksmiths of Yakutsk Province now use the Yakut double bellows while the Tungus of the Okhotsk District use the single bellows of the Russians. The Tungus do not know how to obtain iron from ore and they forge Russian or Yakut iron rods.

Weapons and Tools. The bifurcated iron arrow point (*cȳra*) and the bifurcated bone arrow point (*muos cȳra*) are characteristic of the Yakut. The following are the iron weapons formerly used in war and hunting though at present they are restricted to hunting.

The *bolat*, an ancient iron sword, has a blade 14 cms. long, sharpened on one edge and curved in the direction of the point. The back is straight and thick, though somewhat thinner near the point. The sides are ornamented with engravings, inlaid with copper and brass. The name *bolat*, however, seems to be the ancient Russian word, *bulat*, for sword. The *bolat* has a short iron or bone handle.

The *batas* or war lance (Fig. 55*b*) has a blade about half a yard long; its greatest width is 1.5 inches. One edge is sharpened. The *batas* has a shaft of birch wood about 1.5 meters long. At present the *batas* is used in hunting bears. Like *bolat*, *batas* does not seem to be a Turkic word. It is known among the Russianized natives in Kamchatka and on the Kolyma River. I could not learn the original Yakut word for this weapon. The Yakut call a saber, *sābyla batas*, but *sābyla* is the Russian word (*sablya*) for saber.

A short, thick knife attached to a birch handle, *batyya*, the diminutive of *batas* is used in hunting and was formerly used in war. It was hung on the arm by a leather thong and regarded as a reserve weapon.

Of other Yakut iron implements the knife (*bysax*, from *bys*, to cut; Turkic, *bychak*) may be distinguished (Fig. 56*a*, *c*). It is not large, sel-

53:Tokarev and Gurvich E-4 (no date) 1964
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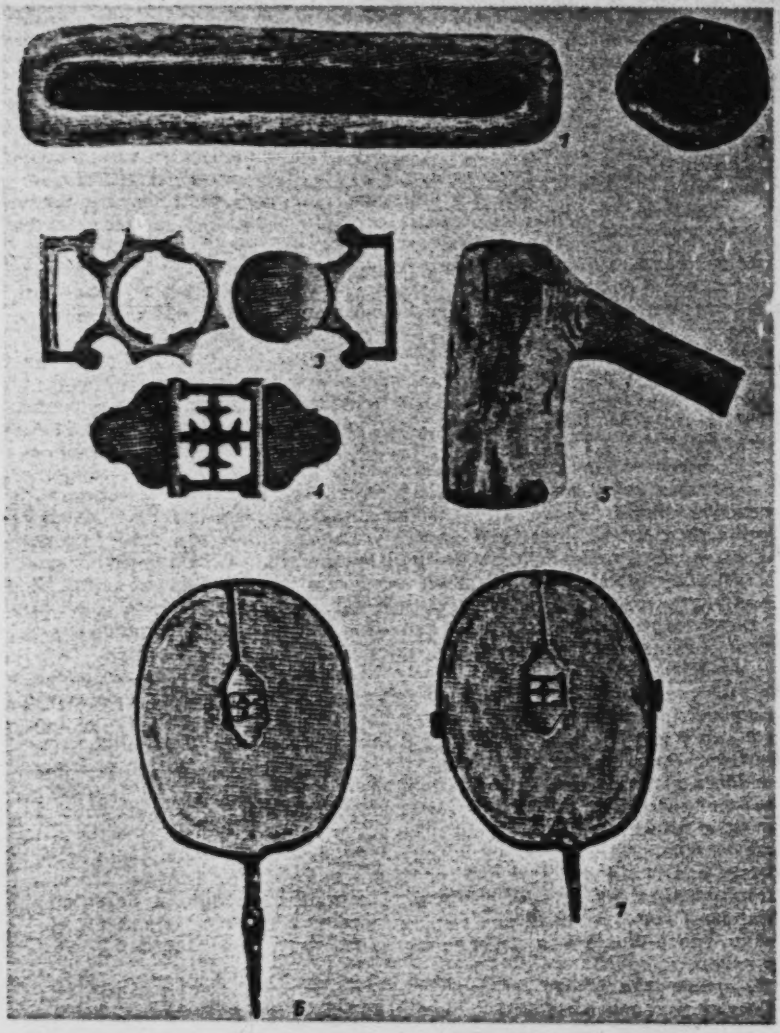

Smithing and potting implements: 1, 2—clay crucibles for melting silver and gold; 3, 4—wooden templets for casting silver belt buckles; 5—wooden hammer for mixing potter's clay; 6, 7—two halves of clay mold for casting silver and gold objects.

pillow. Richly ornamented cloth and leather sweatcloths and girths were placed under the saddle at the sides and on the cruppers, while side flaps hung down from the sides; the stirrups were usually made of metal, although a flexible, narrow strip of wood bent in a circle was sometimes used.

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